

Specification for the book of courses

Study program		Electrical Engineering and Computer Science		
Module		Electrical Power Engineering		
Type and level of studies		Undergraduate Academic Studies		
The name of the course		Power Cable Engineering		
Lecturer (for lectures)		Tasić S. Dragan		
Lecturer/associate (for exercises)		Stojanović S. Miodrag		
Lecturer/associate (for OFE)				
Number of ECTS	6	Course status (obligatory/elective)	Elective	
Prerequisites				
Course objectives	The aim of the course is to familiarize students with the structural elements of power cables, calculation of electrical and magnetic fields in the cable, the impact of the environment on the ampacity of cables, cable accessories, cable laying, testing and failure detection in the cable.			
Course outcomes	Students will be trained to work in the manufacturing, testing and exploitation of electric power cables. Good knowledge of cable characteristics may be useful in designing cable networks.			
Course outline				
Theoretical teaching	Structural elements and types of power cables. Cable electrical field. Electrical parameters of the cable. Power losses in the cables. Cable ampacity. The influence of the environment on the cable ampacity. Short circuit ampacity. Cable terminations and joints. Cable laying. Cable testing. Failure detection in the cable.			
Practical teaching (exercises, OFE, study and research)	Auditive lectures in the fields of electrical field in the cable, electrical parameters of the cable, power loss in the cable, cable ampacity.			
Textbooks/references				
1	D. Tasić, Basics of Power Cable Engineering, Press Series: Textbooks, Faculty of Electronic Engineering, Niš, 2001. (in Serbian)			
2	D. Tasić, Basics of Power Cable Engineering - Collection of Solved Problems, SX PRINTCOPY, Niš, 2003. (in Serbian)			
3	G. J. Anders, Rating of Electric Power Cables in Unfavorable Thermal Environment, IEEE Pres, 2005			
4				
5				
Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
2	2	0	0	0
Teaching methods	Lectures, exercises, discussions and practical demonstrations.			
Grade (maximum number of points 100)				
Pre-exam duties	Points	Final exam	Points	
Activity during lectures	5	Written exam	30	
Exercises		Oral exam	25	
Colloquia	40			
Projects				